**FIGURE 1**

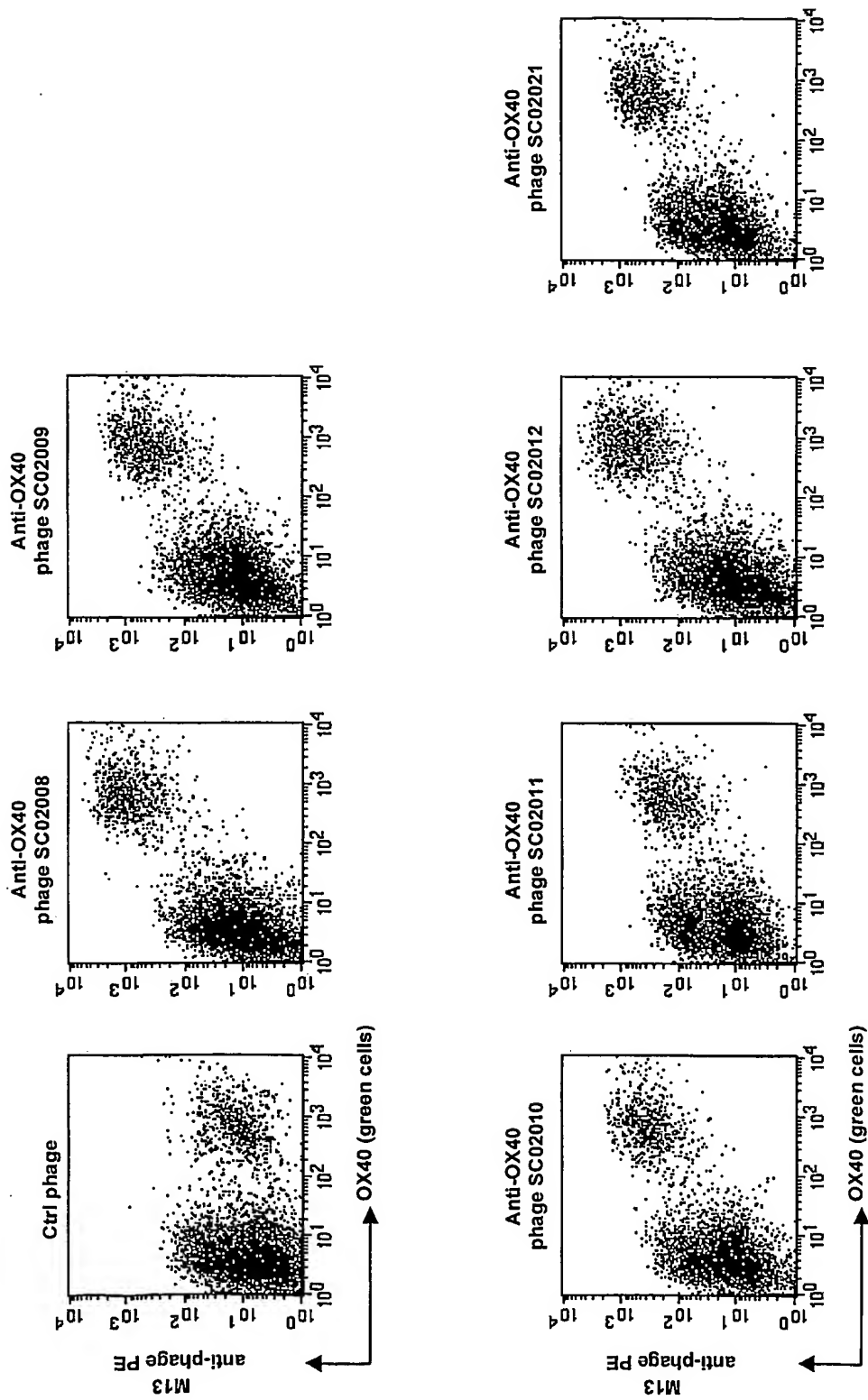


Figure 2

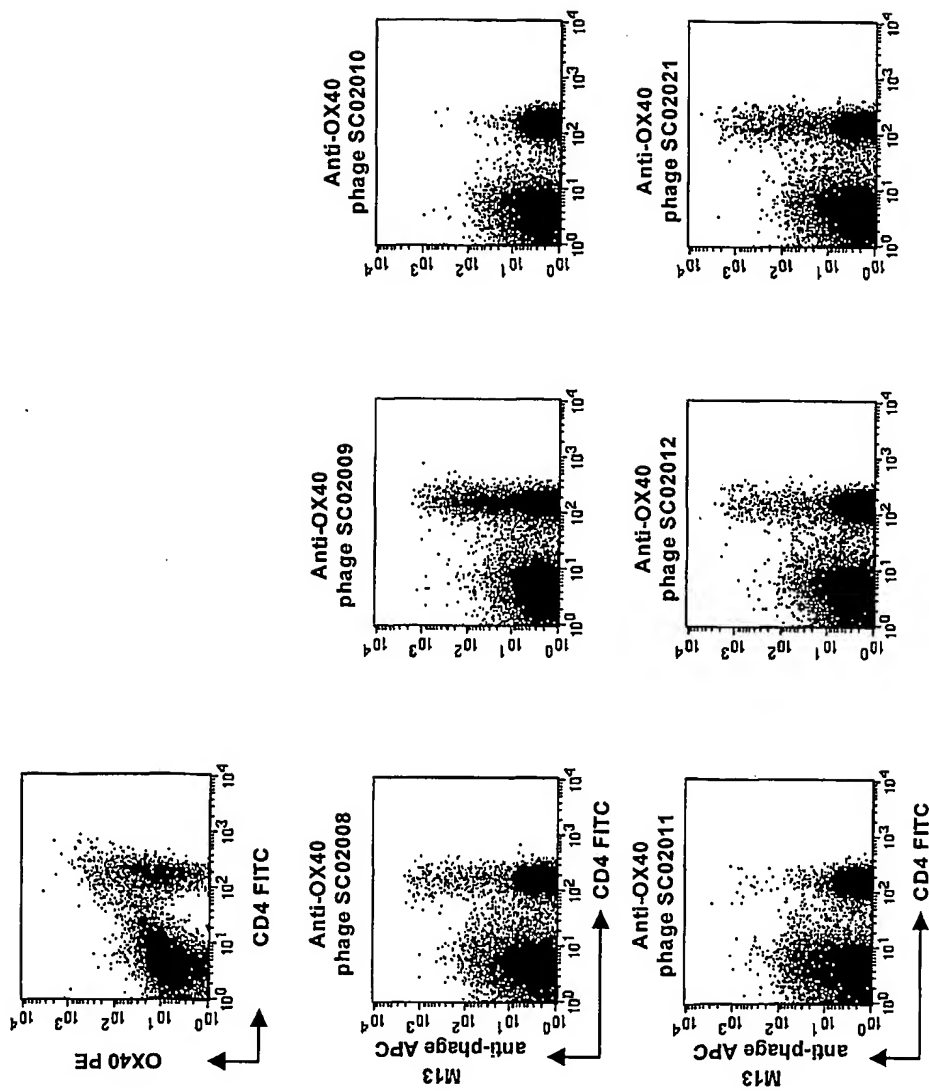


Figure 3A

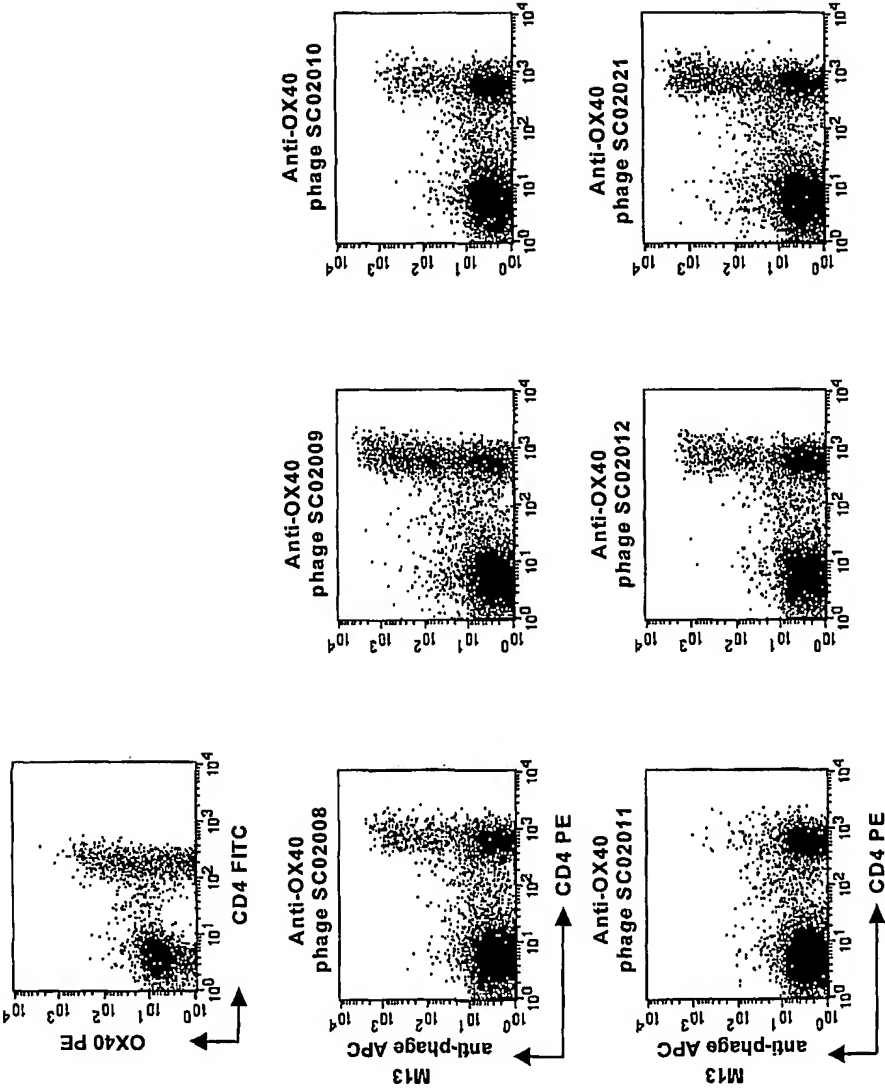


Figure 3B

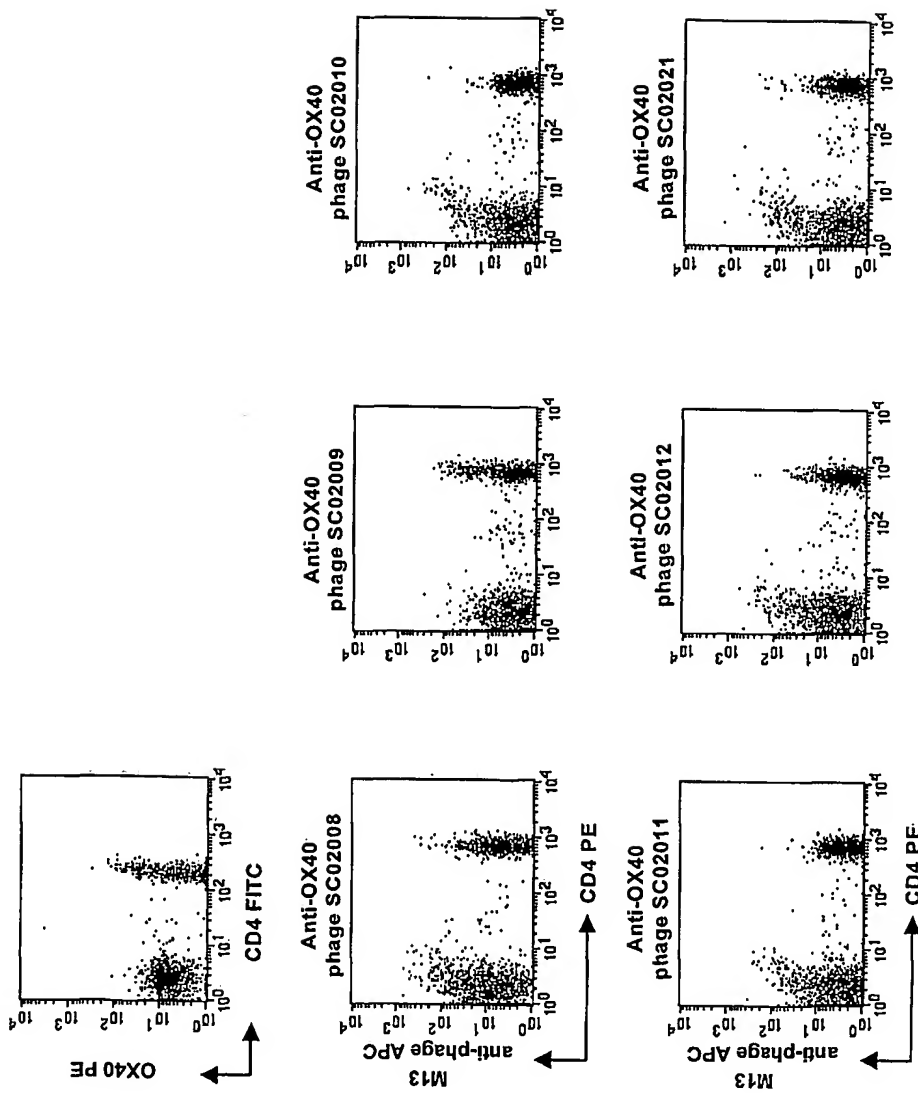


Figure 3C

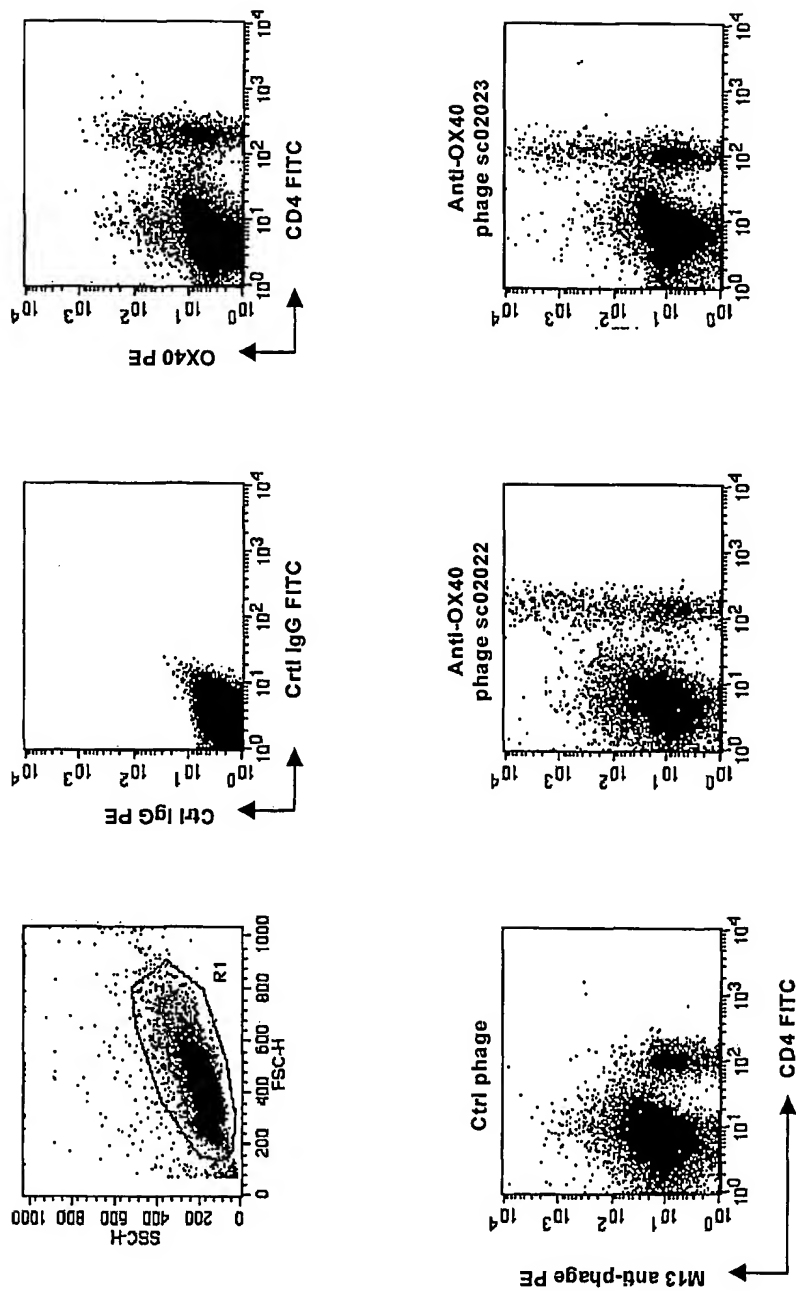
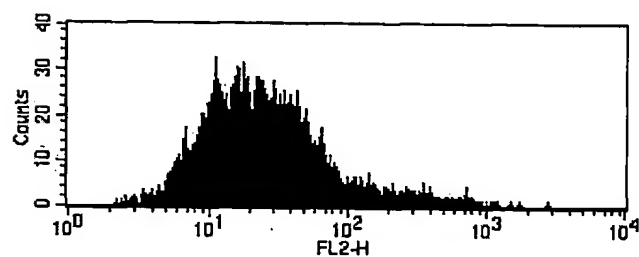
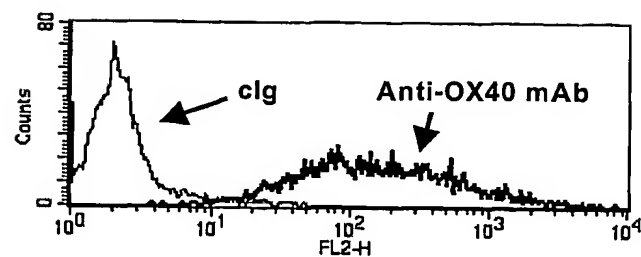
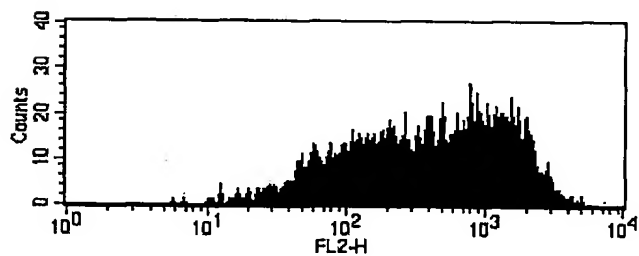
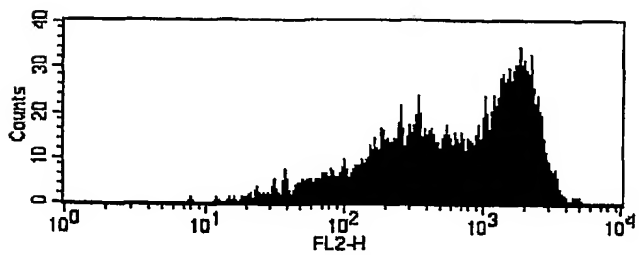


Figure 4A

Perc6 OX40 transfectant



Ctrl phage

Anti-OX40
phage sc02022Anti-OX40
phage sc02023

— M13 anti-phage PE —>

Figure 4B

Anti-human OX40R scFv SC02008

NcoI

143 M A E V Q L V E S G G G L V Q P G G S L R
 CCATGGCTGAGGTGCAGCTGGTGGAGTCTGGGGGAGGCTTGGTCCAGCCTGGAGGGTCCCTGAG

214 L S C A A S G F T F S N Y T M N W V R Q A P G
 ACTCTCCTGTGCAGCCTCTGGATTACCTTTAGCAACTACACGATGAACTGGGTCCGCCAGGCGCCCGGGA

285 K G L E W V S A I S G S G G S T Y Y A D S V K G
 AGGGGCTGGAGTGGGTCTCAGCTATTAGTGGTAGTGGTAGCACATACTACGCAGACTCCGTGAAGGGC

356 R F T I S R D N S K N T L Y L Q M N S L R A E D
 CGGTTCACCATCTCCAGAGACAATTCCAAGAACACGCTGTATCTGCAAATGAACAGCCTGAGAGCCGAGGA

427 T A V Y Y C A K D R Y S Q V H Y A L D Y W G Q
 CACGGCCGTGTATTACTGTGCCAAAGACCGCTACTCCCAGGTGCACTACGCGTTGGATTACTGGGGCCAGG

498 G T L V T V L E G T G G S G G T G S G T G T S E
 GCACCCTGGTGACCGTGCTCGAGGGTACCGGAGGTTCGGCGGAACCGGGTCTGGGACTGGTACGAGCGAG

569 L D I Q M T Q S P D S L P V T P G E P A S I S C
 CTCGACATCCAGATGACGCAGTCTCCAGACTCACTGCCCGTCACCCCTGGAGAGCCGGCCTCCATCTCCTG

640 R S S Q S L L H S N G Y N Y L D W Y L Q K A G
 CAGGTCTAGTCAGAGCCTCCTGCATAGTAATGGATACAACATTTGGATTGGTACCTGCAGAAGGCAGGGC

711 Q S P Q L L I Y L G S N R A S G V P D R F S G S
 AGTCTCCACAGCTCCTGATCTATTGGGTTCTAATCGGGCCTCCGGGGTCCCTGACAGGTTCA GTGGCAGT

782 G S G T D F T L K I S R V E A E D V G V Y Y C Q
 GGATCAGGCACAGATTTTACACTGAAATCAGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGCCA

NotI

853 Q Y Y N H P T T F G Q G T K L E I K R A A
 GCAGTACTACAACCACCCGACGACCTTCGGCCAGGGCACCAAACCTGGAATCAAACGCGCGGCCGC

Figure 5

Anti-human OX40R scFv SC02009

NcoI
~~~~~

143 M A E V Q L V E S G G G L  
CCATGGCTGAGGTGCAGCTGGTGGAGTCTGGGGGAGGCTTG

214 V Q P G G S L R L S C A A S G F T F S G Y S M N  
GTCCAGCCTGGGGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTCACCTTCAGCGGCTACTCTATGAA

285 W V R Q A P G K G L E W V G R T R N K A N S Y  
CTGGGTCCGCCAGGCGCCCGGAAGGGGCTGGAGTGGGTGGCCGTACTAGAAACAAAGCTAACAGTTACA

356 T T E Y A A S V K G R F T I S R D D S K N S L Y  
CCACAGAATACGCCGCTCTGTGAAAGGCAGATTCACCATCTCAAGAGATGATTCAAAGAACTCACTGTAT

427 L Q M N S L R A E D T A V Y Y C A K D R Y V N T  
CTGCAAATGAACAGTCTGAGAGCCGAGGACACAGCCGTATTACTGTGCCAAAGACCGCTACGTCAACAC

498 S N A F D Y W G Q G T L V T V L E G T G G S G  
GTCGAACGCGTTCGATTACTGGGGCCAGGGCACCTGGTGACCGTGCTCGAGGGTACCGGAGGTTCCGGCG

569 G T G S G T G T S E L D I Q M T Q S P D S L P V  
GAACCGGGTCTGGGACTGGTACGAGCGAGCTCGACATCCAGATGACACAGTCTCCAGACTCACTGCCCGTC

640 T P G E P A S I S C R S S Q S L L H S N G Y N Y  
ACCCCTGGAGAGCCGGCCTCCATCTCCTGCAGATCTAGTCAGAGCCTCCTGCATAGTAATGGATACAATA

711 L D W Y L Q K P G Q S P Q L L I Y L G S N R A  
TTTGGATTGGTACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTGGGTTCTAATCGGGCCT

782 S G V P D R F S G S G S G T D F T L K I S R V E  
CCGGGGTCCCTGACAGGTTTCAGTGGCAGTGGATCAGGCACAGATTTTACTACTGAAAATCAGCAGAGTGGAG

853 A H H V G V Y Y C Q Q Y P L G P P T F G Q G T K  
GCTCACCATGTTGGGGTTTATTACTGCCAGCAGTACCCGCTGGGCCCGCCACCTTCGGCCAGGGCACCAA

NotI  
~~~~~

924 L E I K R A A
ACTGGAAATCAAACGCGGCGCCGC

Figure 6

Anti-human OX40R scFv SC02010

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                                NcoI
                                ~~~~~
                                M A E V Q L V
72                                CCATGGCTGAGGTGCAGCTGGTGG
                                ~~~~~
143  E S G G G L I Q P G G S L R L S C A A S G F T F
    AGTCTGGGGGAGGCTTGATCCAGCCTGGGGGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTACCTTC

214  S G Y P M N W V R Q A P G K G L E W V A V I S Y
    AGCGGCTACCTATGAACTGGGTCCGCCAGGCGCCCGGAAGGGGCTGGAGTGGGTGGCAGTTATATCATA

285  D G S N K Y Y A D S V K G R F T I S R D N S K
    TGATGGAAGTAATAAATACTACGCAGACTCCGTGAAGGGCCGATTACCATCTCCAGAGACAATTCCAAGA

356  N T L Y L Q M N S L R A E D T A V Y Y C A R D M
    ACACGCTGTATCTGCAAATGAACAGCCTGAGAGCTGAGGACACAGCCGTGTATTACTGTGCAAGAGACATG

427  S G F H E F D Y W G Q G T L V T V L E G T G G S
    TCCGGCTTCCACGAGTTCGATTACTGGGGCCAGGGCACCCCTGGTGACCGTGCTCGAGGGTACCGGAGGTC

498  G G T G S G T G T S E L T Q S P S S L S A S V
    CGGCGGAACCGGCTCTGGGACTGGTACGAGCGAGCTCACCCAGTCTCCATCCTCCCTGTCTGCATCTGTAG

569  G D R V T I T C R A S Q S I S S Y L N W Y Q Q K
    GAGACAGAGTCACCATCACTTGCCGGGCAAGTCAGAGCATTAGCAGCTACTTAAATTGGTATCAGCAGAAA

640  P G K A P K L L I Y A A S S L Q S G V P S R F S
    CCAGGGAAGCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTCCCATCAAGGTTTCAG

711  G S G S G T D F T L T I S S L Q P E D F A T Y
    TGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGTCTGCAACCTGAAGATTTTGCAACTTACT

                                NotI
                                ~~~~~
782  Y C Q Q S Y S T P P T F G Q G T K V E I K R A A
    ACTGTCAACAGAGTTACAGTACCCCTCCAACGTTCCGGCAAGGGACCAAGGTGGAGATCAAACGTGCGGCC

853  GC

```

Figure 7

Anti-human OX40R scFv SC02011

NcoI
~~~~~

143                   M A E V Q L V E S G G G V V Q P G R  
                  CCATGGCTGAGGTGCAGCTGGTGGAGTCTGGGGGAGGCGTGGTCCAGCCTGGGAGGT

214                   S L R L S C A A S G F T F S D Y T M N W V R Q A  
                  CCCTGAGACTCTCCTGTGCAGCCTCTGGATTACCTTCAGCGACTACACGATGAACTGGGTCCGCCAGGCG

285                   P G K G L E W V S S I S G G S T Y Y A D S R K G  
                  CCCGGAAGGGGCTGGAGTGGGTCTCATCCATTAGTGGTGGTAGCACATACTACGCAGACTCCAGGAAGGG

356                   R F T I S R D N S K N T L Y L Q M N N L R A E  
                  CAGATTCACCATCTCCAGAGACAATCCAAGAACACGCTGTATCTTCAAATGAACAACCTGAGAGCTGAGG

427                   D T A V Y Y C A R D R Y F R Q Q N A F D Y W G Q  
                  ACACGGCCGTGTATTACTGTGCAAGAGACCGCTACTTCAGGCAGCAGAACGCGTTCGATTACTGGGGCCAG

498                   G T L V T V L E G T G G S G G T G S G T G T S E  
                  GGCACCCCTGGTGACCGTGCTCGAGGGTACCGGAGGTTCGCGCGGAACCGGGTCTGGGACTGGTACGAGCGA

569                   L D I Q M T Q S P V T L P V T P G E P A S I S  
                  GCTCGACATCCAGATGACTCAGTCTCCAGTCACCCCTGCCCGTCACCCCTGGAGAGCCGGCCTCCATCTCCT

640                   C R S S Q S L L H S N G Y N Y L D W Y L Q K P G  
                  GCAGGTCTAGTCAGAGCCTCCTGCATAGTAATGGATACAACTATTTGGATTGGTACCTGCAGAAGCCAGGG

711                   Q S P Q L L I Y L G S N R A S G V P D R F S G S  
                  CAGTCTCCACAGCTCCTGATCTATTTGGGTTCTAATCGGGCCTCCGGGGTCCCTGACAGGTTCACTGGCAG

782                   G S G T D F T L K I S R V E A E D V G V Y Y C  
                  TGGATCAGGCACAGATTTTACACTGAAAATCAGCAGAGTGGAGGCTGAGGATGTTGGGGTTTATTACTGCC

NotI  
~~~~~

853 Q Q Y L T A P P T F G Q G T K L E I K R A A
 AGCAGTACCTCACGGCCCCGCCACCTTCGGCCAGGGCACCAACTGGAAATCAAACGCGGCGCCGC

Figure 8

Anti-human OX40R scFv SC02012

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                                NcoI
                                ~~~~~
                                M A E V Q L V E
72                                CCATGGCTGAAGTGCAGCTGGTGG
                                S G G G L V K P G G S L R L S C A A S G F T F S
                                AAGCGGCGGCGGCTGGTGAAGCCGGGTGGCAGCCTGCGCCTGAGCTGCGCCGCTAGCGGCTTCACCTTTA
                                N D S M N W M R Q A P G K G L E W V A N I N Q
214                               GCAACGACTCGATGAACTGGATGCGCCAGGCCCGGGCAAAGGCCTCGAATGGGTGGCCAATATCAATCAG
                                D G N E K Y Y A D S V K G R F T I S R D N S K N
285                               GATGGCAACGAAAAATATTACGCCGACTCTGTCAAAGGCCGCTTCACCATCAGTCGCGATAACTCCAAAAA
                                S L Y L Q M N S L R D E D T A L Y Y C A R A R
356                               CTCCCTGTACCTGCAGATGAACAGCCTGCGCGACGAAGATACCGCCCTGTACTACTGCGCACGCGCCCGCG
                                A A G T I F D Y W G Q G T L V T V L E G T G G S
427                               CCGCGGCGCACCATCTTCGATTACTGGGGCCAGGGCACCCTGGTGACCGTGCTCGAGGGTACCGGAGGTTCC
                                G G T G S G T G T S E L D I Q M T Q S P S S L S
498                               GGCGGAACCGGGTCTGGGACTGGTACGAGCGAGCTCGATATCCAGATGACCCAGAGCCCGAGTTCCCTGAG
                                A S V G D R V T I T C R A S Q N V S N Y L T W
569                               CGCCTCCGTGGGCGACCGCGTGACCATCACCTGCCGCGCCAGCCAGAACGTCAGCAACTACCTGACCTGGT
                                Y Q Q K P G K A G K L L I Y A A S S L Q S G V P
640                               ACCAGCAGAAACCGGGCAAGGCTGGCAAACTGCTGATTACGCCGCCAGCAGCCTCCAAAGCGGCGTGCCG
                                S R F S G S G S G T D F T L T I S S L Q P E D F
711                               TCTAGATTCAAGTGGCTCCGGCTCCGGAACCGATTTTACCCTGACCATCAGCAGCCTGCAGCCGGAAGATTT
                                A T Y Y C Q Q S Y F N P A T F G Q G T K L E I
782                               CGCTACCTACTATTGTCAGCAGTCCTACTTCAACCGGCGACCTTCGGCCAGGGCACCAAACTGGAAATCA
                                NotI
                                ~~~~~
                                K R A A
853                               AACGCGCGGCCGC

```

Figure 9

Anti-human OX40R scFv SC02021

NcoI
~~~~~

143 M A E V Q L V E S G G G L  
CCATGGCTGAGGTGCAGCTGGTGGAGCTGSGGGAGGCTTG

214 V Q P R G S L R L S C A A S G F T F S S Y A M N  
GTACAGCCTAGGGGTCCCTGAGACTCTCCTGTGCAGCCTCTGGATTACCTTTAGCAGCTACGCGATGAA

285 W V R Q A P G K G L E W V A V I S Y D G S N K  
CTGGGTCCGCCAGGCGCCCGGAAGGGGCTGGAGTGGGTGGCAGTTATATCATATGATGGAAGCAATAAAT

356 Y Y A D S V K G R F T I S R D N S K N T L Y L Q  
ACTACGCAGACTCCGTGAAGGGCCGATTCCCATCTCCAGAGACAATTCCAAGAACACGCTGTATCTGCAA

427 M N S L R A E D T A V Y Y C A K D R Y I T L P N  
ATGAACAGCCTGAGAGCTGAGGACACAGCCGTGTATTACTGTGCCAAAGACCGCTACATCACGTTGCCGAA

498 A L D Y W G Q G T L V T V L E G T G G S G G T  
CGCGTTGGATTACTGGGGCCAGGGCACCTGGTGACCGTGCTCGAGGGTACCGGAGGTCCGGCGGAACCG

569 G S G T G T S E L D I Q M T Q S P V S L P V T P  
GGTCTGGGACTGGTACGAGCGAGCTCGACATCCAGATGACCCAGTCTCCAGTCTCACTGCCCGTCACCCCT

640 G E P A S I S C R S S Q S L L H S N G Y N Y L D  
GGAGAGCCGGCCTCCATCTCCTGCAGGTCTAGTCAGAGCCTCCTGCATAGTAATGGATACAACCTATTTGGA

711 W Y L Q K P G Q S P Q L L I Y L G S N R A S G  
TTGGTACCTGCAGAAGCCAGGGCAGTCTCCACAGCTCCTGATCTATTGGGTTCTAATCGGGCCTCCGGGG

782 V P D R F S G S G S G T D F T L K I S R V E A E  
TCCCTGACAGGTTCACTGGCAGTGGATCAGGCACAGATTTTACACTGAAAATCAGCAGAGTGGAGGCTGAG

853 D V G V Y Y C Q Q Y K S N P P T F G Q G T K V E  
GATGTTGGGTTTATTACTGCCAGCAGTACAAGTCGAACCCGCCACCTTCGGCCAGGGCACCAAAGTGGA

NotI  
~~~~~

924 I K R A A
AATCAAACGCGCGGCCGC

Figure 10

Anti-human OX40R scFv SC02023

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                                NcoI
                                -----
                                M A E V Q L V E
72                                CCATGGCCGAGGTGCAGCTGGTGGAG
                                S G G G L V H P G G S L R L S C A G S G F T F S
143    TCTGGGGGAGGCTTGGTACATCCTGGGGGGTCCCTGAGACTCTCCTGTGCAGGCTCTGGATTACCTTCAG
                                S Y A M H W V R Q A P G K G L E W V S A I G T
214    TAGCTATGCTATGCACTGGGTTCCGCCAGGCTCCAGGAAAAGTCTGGAGTGGGTATCAGCTATTGGTACTG
                                G G G T Y Y A D S V M G R F T I S R D N S K N T
285    GTGGTGGCACATACTATGCAGACTCCGTGATGGGCCGGTTCACCATCTCCAGAGACAATTCCAAGAACAG
                                L Y L Q M N S L R A E D T A V Y Y C A R Y D N V
356    CTCTATCTGCAAAATGAACAGCCTGAGAGCCGAGGACACGGCCGTGTATTACTGTGCAAGATACGACAATGT
                                M G L Y W F D Y W G Q G T L V T V S S G G G G
427    GATGGGTCTTTACTGGTTTGACTACTGGGGCCAAGGTACCCTGGTCACCGTCTCGAGTGGTGGAGGCGGTT
                                S G G G G S G G G G S E I E L T Q S P A T L S L
498    CAGGCGGAGGTGGCTCTGGCGGTGGCGGATCGGAAATTGAGCTCACACAGTCTCCAGCCACCCTGTCTTTG
                                S P G E R A T L S C R A S Q S V S S Y L A W Y Q
569    TCTCCAGGGGAAAAGAGCCACCCTCTCCTGCAGGGCCAGTCAGAGTGTAGCAGTACTTAGCCTGGTACCA
                                Q K P G Q A P R L L I Y D A S N R A T G I P A
640    ACAGAAACCTGGCCAGGCTCCAGGCTCCTCATCTATGATGCATCCAACAGGGCCACTGGCATCCAGCCA
                                R F S G S G S G T D F T L T I S S L E P E D F A
711    GGTTCA GTGGCAGTGGGTCTGGGACAGACTTCACTCTCACCATCAGCAGCCTAGAGCCTGAAGATTTTGA
                                V Y Y C Q Q R S N W P P A F G G G T K V E I K R
782    GTTTATTACTGTCAGCAGCGTAGCAACTGGCCTCCGGCTTTCGGCGGAGGGACCAAGGTGGAGATCAAACG
                                NotI
                                -----
                                A A
853    TGCGGCCGC

```

Figure 12

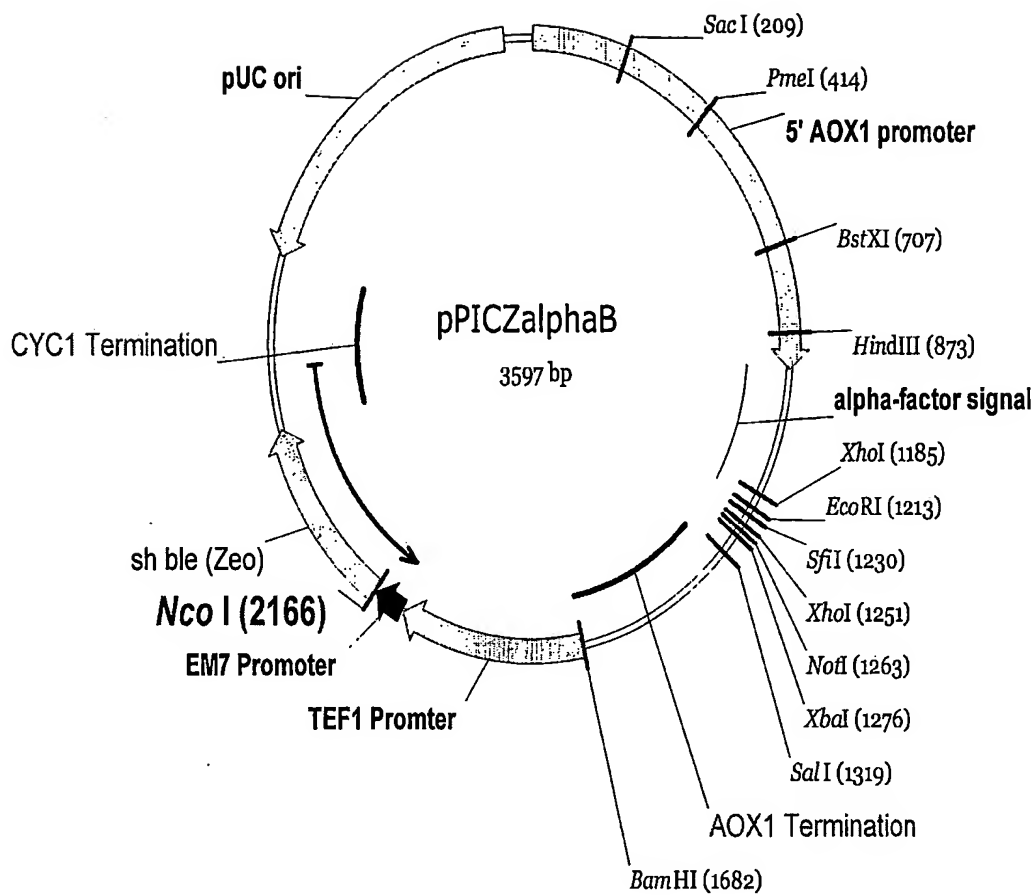


Figure 13A

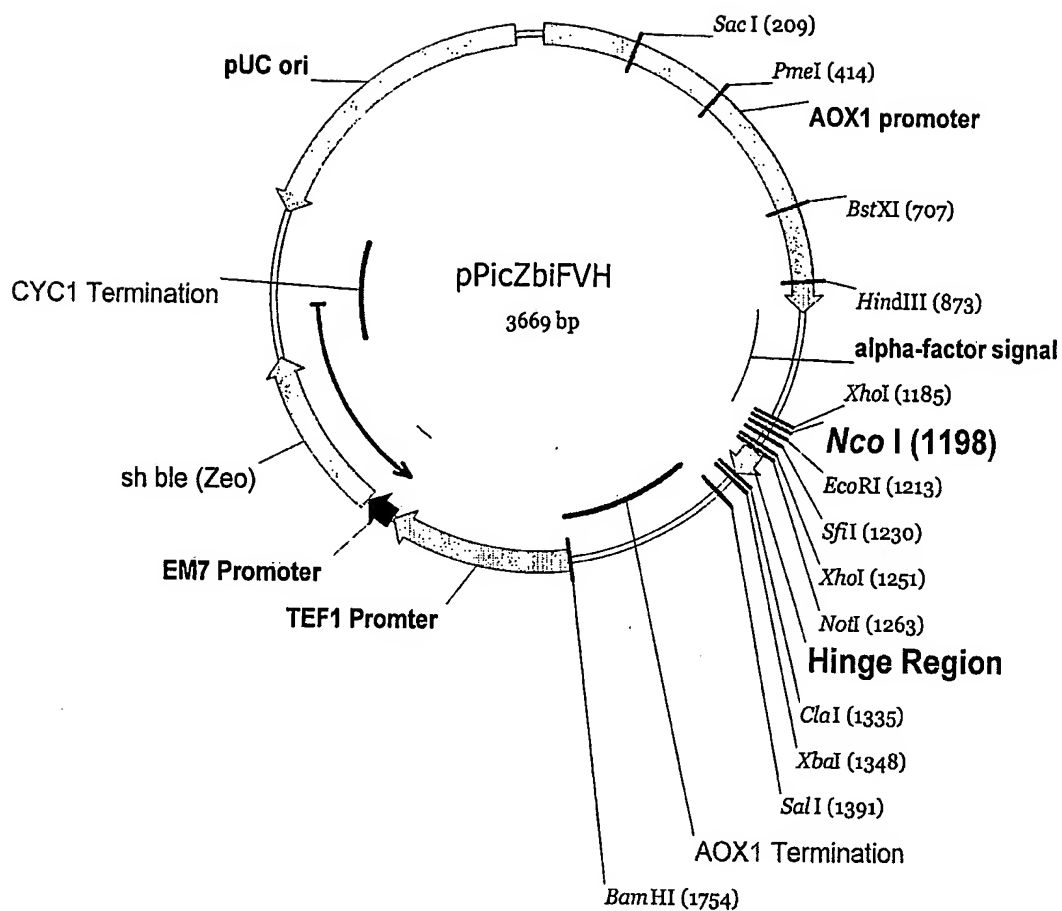
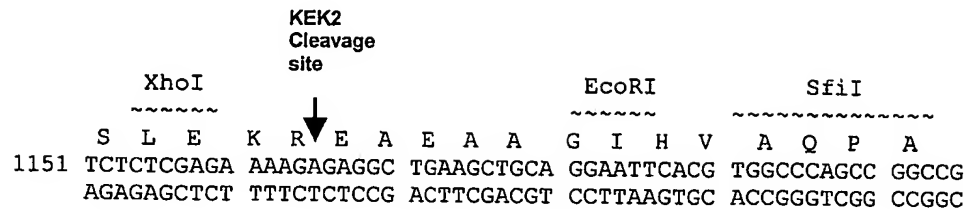
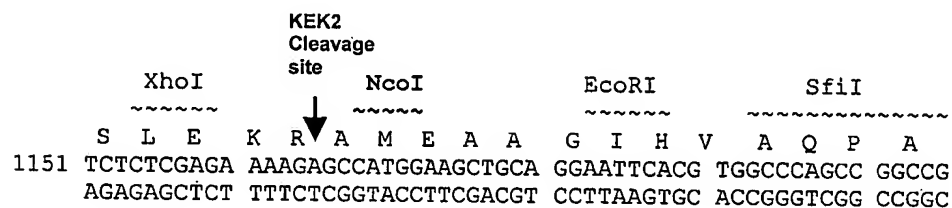


Figure 13B

5' Cloning site of pPicZαB



5' Cloning site of pPicZFVH



synthetic hinge fragment

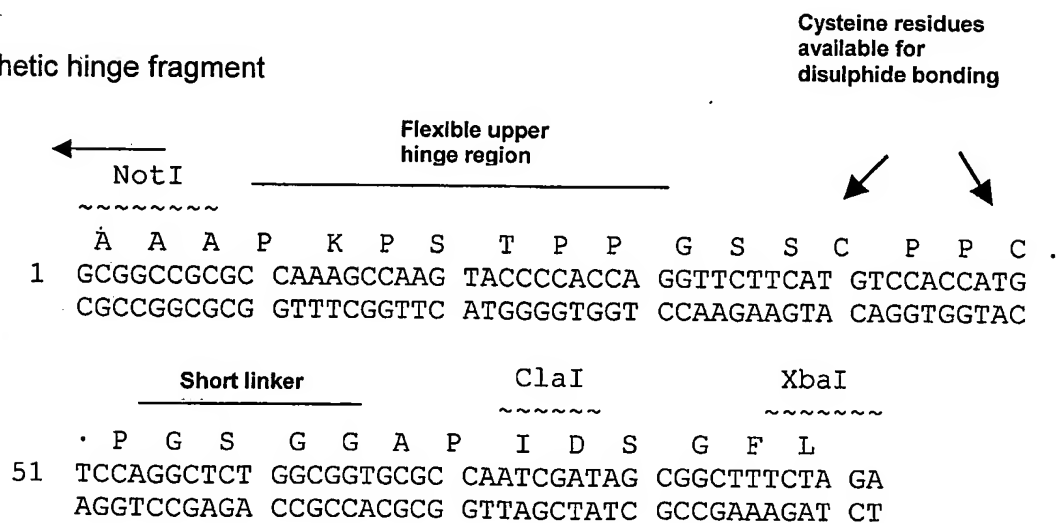


Figure 13C

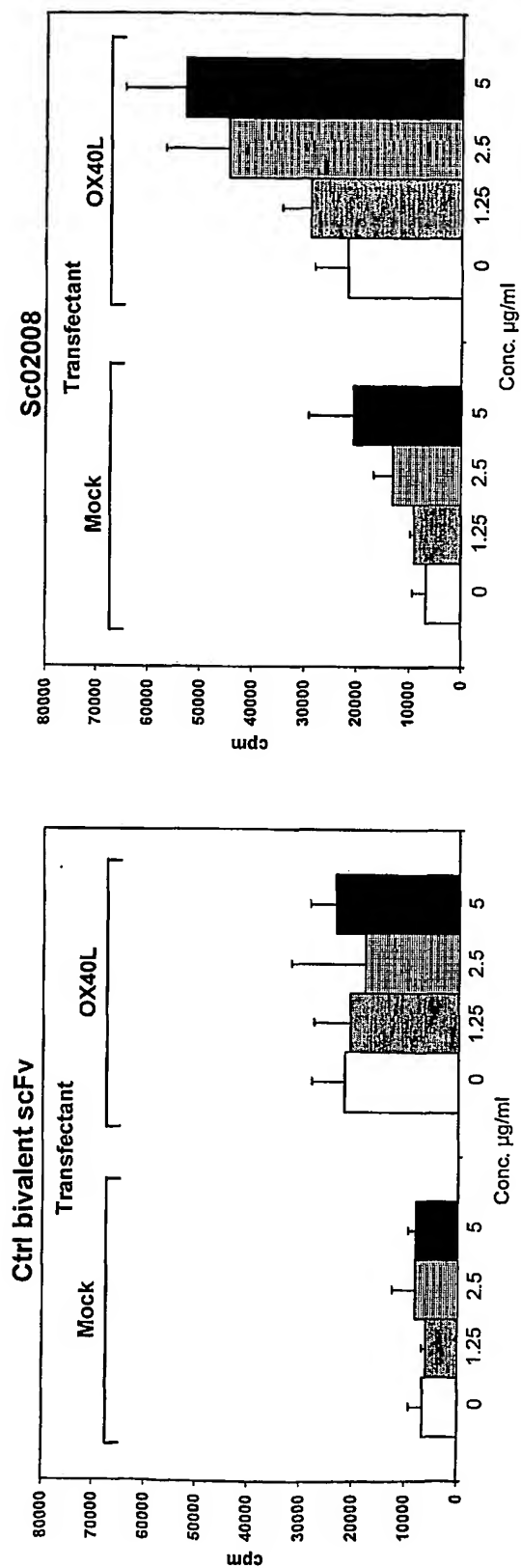


Figure 14A

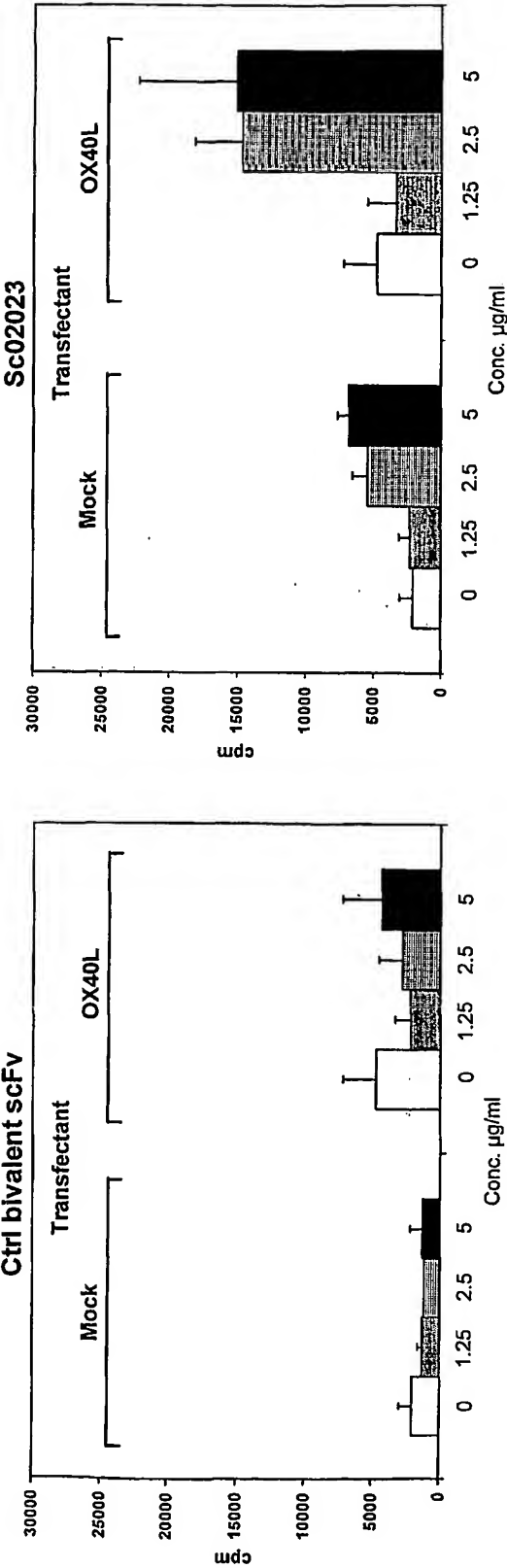


Figure 14B

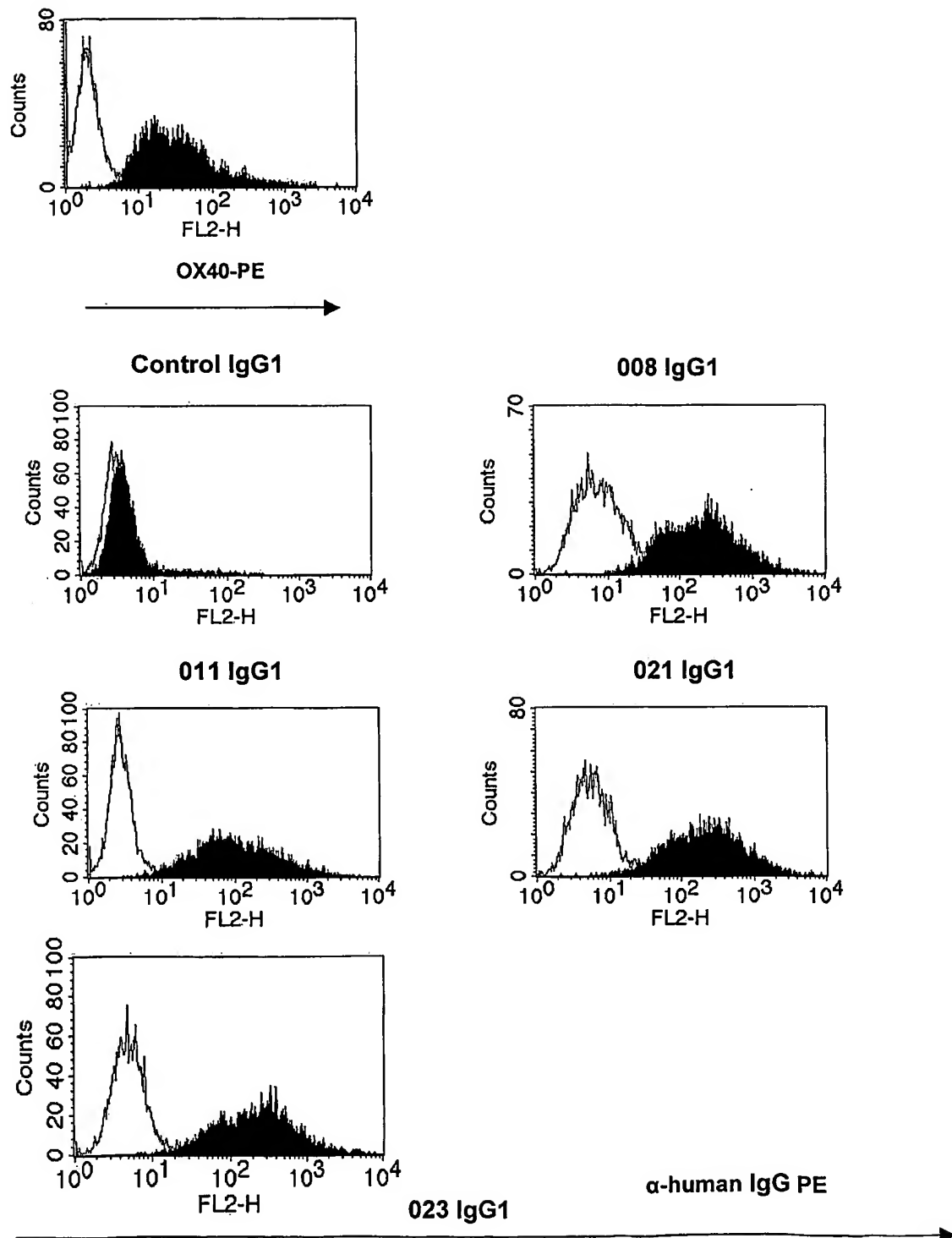


Figure 15